

PAPERS BY BELL LABORATORIES AUTHORS

PHYSICAL SCIENCES

Amorphous Concentrated Spin Glasses: $MnX(X=Ge, C, Si-Te)$. J. J. Hsuser, *Phys Rev*, 22 (September 1, 1980), pp 2554-9.

Avalanche-Induced Hot Electron Injection and Trapping in Gate Oxides on p-Si. A. K. Sinha, W. S. Lindenberger, W. D. Powell, and E. I. Povelonis, *J Electrochem Soc*, 127 (1980), pp 2046-9.

Block Copolymer Theory. 6. Cylindrical Domains. E. Helfand and Z. R. Wasserman, *Macromolecules*, 13 (July-August 1980), pp 994-8.

Convection in Rectangular Cavities with Differentially Heated End Walls. P. G. Simpkins and T. D. Dudderar, *Europhys Conf Abstr Physico Chemical Hydrodynamics* 3, 3F (April 1980), pp 268-73.

Crystalline Transformations in Spherulites of Poly(vinylidene Fluoride). A. J. Lovinger, *Polymer*, 21 (1980), pp 1317-22.

Effects of Atomic Motion on Degenerate 4-Wave Mixing. P. F. Liao and L. M. Humphrey, *Proceedings of the International Conference on Laser '79*, edited by V. J. Corcoran, McLean, Virginia: STS Press, 1980, pp 473-4.

The Effects of Velocity-Changing Collisions on Two-Photon and Stepwise Absorption Spectroscopic Lineshapes. P. F. Liso, J. E. Bjorkholm, and P. R. Berman, *Phys Rev A*, 21 (June 1980), pp 1927-38.

Exploratory Data Analysis in the Geophysical Sciences. B. Kleiner and T. E. Grsedel, *Rev Geophys Space Phys*, 18, No. 3 (August 1980), pp 699-717.

Hydrogen in Semi-Insulating Polycrystalline Silicon Films. W. R. Knolke, H. R. Maxwell, Jr., and R. E. Benenson, *J Appl Phys*, 51 (August 1980), pp 4385-90.

Hyperfine-Induced Singlet-Triplet Mixing in 3He . P. F. Liso, R. R. Freeman, R. Panock, and L. M. Humphrey, *Optics Commun*, 34 (August 1980), pp 195-8.

The Influence of Structural Disorder on the Exciton Spectra of $K^+CN_x-Cl_{1-x}$. M. A. Bosch, *J Phys C*, 25 (1980), pp L671-5.

A Model of SIPOS Deposition Based on Infrared Spectroscopic Analysis. W. R. Knolke and H. R. Maxwell, Jr., *J Electrochem Soc*, 127 (October 1980), pp 2254-9.

Observation by NMR of the Formation of Localized Electronic States in an Ionic Alloy. R. Dupree, D. J. Kirby, W. Freyland, and W. W. Warren, *Phys Rev Lett*, 45 (July 14, 1980), pp 130-3.

Oxidation of Tantalum Silicide on Polycrystalline Silicon. S. P. Jurarka, D. B. Fraser, W. J. Lindenberger, and A. K. Sinha, *J Appl Phys*, 51 (June 1980), pp 3241-5.

Piezoelectric $Cs_2S_2O_8$: Room Temperature Crystal Structure. R. Limings, S. C. Abrahams, and J. L. Bernstein, *J Chem Phys*, 73 (August 1, 1980), pp 1432-8.

Surface Enhanced Raman Scattering in Multilayer Film Structures (Abstract). C. A. Murry, D. L. Allam, and M. R. Rhinewine, *Proceedings of the VIIth International Conference on Raman Spectroscopy*, August 4-8, 1980, edited by W. F. Murphy, Amsterdam: North-Holland, 1980, p 406.

MATHEMATICS

Baxter Permutations Rise Again. C. L. Mallows, *J Combinatorial Theor, Ser A*, 27 (November 1979), pp 394-6.

Indirect Rate Distortion Problems. H. S. Witsenhausen, *IEEE Trans Inform Theor*, IT-26 (September 1980), pp 518-21.

A Weighted Overlap-Add Method of Short-Time Fourier Analysis/Synthesis. R. E. Crochiere, *IEEE Trans Acoustics Speech and Signal Process, ASSP*-28, No. 1 (February 1980), pp 99-102.

COMPUTING

C on the Tandem 16. A. M. Usas, *Proc Tandem Users Group Convention*, San Diego, California, September 15-17, 1980.

Information Theory in Digital Testing—A New Approach to Functional Test Pattern Generation. V. D. Agrawal, IEEE Int Conf on Circuits and Computers (October 1980), pp 928-31.

Logic and Fault Simulations of the DSP, A VLSI Digital Signal Processor. I. I. Eidumisti and R. N. Gadenz, Proc 1980 Int Conf on Circuits and Computers, ICCS 80 (October 1980), pp 948-52.

A Model for a Tandem Software Development System. A. M. Usas, Proc Tandem Users Group Convention, San Diego, California, September 15-17, 1980.

A Modified Adaptive Transform Coding Scheme With Post-Processing Enhancement. J. M. Tribolet and R. E. Crochiere, Proc IEEE Int Conf on Acoustics Speech and Signal Process (April 1980), pp 336-9.

Network Management: Surveillance and Control of a Modern Telecommunications Network. D. A. Kettler, IEEE Int Conf on Circuits and Computers, 2 (October 1980), pp 834-7.

On Retrieval From a Small Version of a Large Data Base. A. Walker, Proc Sixth Int Conf Very Large Data Bases, IEEE Conf Proc (October 1980), pp 47-54.

Problems in Physical Property Data Retrieval. D. T. Hswkins, J Chem Inf Comput Sci, 20 (August 1980), pp 143-5.

ENGINEERING

Administration of Pair Gain Systems. G. R. Boyer and M. A. Schwartz, Nstl Telecommun Conf 1980, 1 (December 1, 1980), pp 12.2.2-12.2.6.

Efficient Waveguide Electro-Optic TE \leftrightarrow TM Mode Converter/Wavelength Filter. R. C. Alferness, Appl Phys Lett, 36 (April 1979), pp 513-5.

ESD Damage from Trihoelectrically Charged IC Pins. P. R. Bossard, R. G. Chemelli, and B. A. Unger, *Electrically Overstress/Electrostatic Discharge Symposium Proceedings, 1980*, New York: Reliability Analysis Center RADC/RBRAC Griffiss AFB.

A Fast-Switching Low-Loss, 12-GHz Microstrip 4-PSK Path Length Modulator. B. Glance and N. Amitay, IEEE Trans Commun, COM-28, No. 10 (October 1980), pp 1824-8.

A Fast Low-Loss Low-Drive 14-GHz Microstrip PIN Phase Shifter. B. Glance, IEEE Trans Microwave Theor Tech, MTT-28, No. 6 (June 1980), pp 669-71.

Integrated Services Digital Network. T. L. Powers, Signal, 34, No. 10 (August 1980), pp 45-6.

Intermag-80 Session Chairman's Summary. R. D. Pierce, IEEE Magnetics Society Newsletter, 16 (Summer 1980), p 1.

MOS Compatibility of High-Conductivity TaSi₂/n⁺ Poly-Si Gates. A. K. Sinha, W. S. Lindenberger, D. B. Fraser, S. P. Murarka, and E. N. Fuls, IEEE Trans Electron Devices, ED-27 (1980), pp 1425-30.

Numerical Analysis of the Resistance of Interference Fit Pin Connections. E. Gusncial, IEEE Trans Components, Hybrids, and Manufact Tech, CHMT-3 (September 1980), pp 402-7.

Optimization of Multimode Fiber Bandwidth Via Differential Group Delay Analysis. M. J. Buckler, J. W. Shiever, and F. P. Partus, Conf Proc—Sixth European Conf on Optical Commun (September 15, 1980), pp 33-6.

Picosecond Optical Sampling Technique for Measuring the Speed of Fast Electro-Optic Switch/Modulators. R. C. Alferness, N. P. Economou, and L. L. Buhl, Appl Phys Lett, 37 (October 1, 1980), pp 597-9.

Refractory Silicides for Integrated Circuits. S. P. Murarka, J Vsc Sci Technol, 17 (July-August 1980), pp 775-92.

Solid State Microwave Power Amplifiers Used in the Bell System. J. W. Gewartowski, Microwaves J, 23 (September 1980), pp 68 and 72.

Stress Distributions Around an Interference-Fit Pin Convection in a Plated-Thru-Hole. R. P. Goel and E. Guancial, IEEE Trans Components, Hybrids, and Manufact Tech, CHMT-3 (September 1980), pp 392-402.

SOCIAL AND LIFE SCIENCES

An Interpretation of the Log Likelihood Ratio as a Measure of Waveform Coder Performance. R. E. Crochiere, J. M. Tribolet, and L. R. Rabiner, IEEE Trans Acoustics, Speech and Signal Process, ASSP-28, No. 3 (June 1980), pp 318-23.

Modern Methods of Investigation in Speech Production. O. Fujimura, *PHONETICA*, 37, Nos. 1, 2 (1980), pp 38-54.

On the Measurement of Waveform Coder Distortion Using the Log Likelihood Ratio. R. E. Crochiere, J. M. Tribolet, and L. R. Rabiner, *Proc 1980 Int Conf on Acoustics, Speech and Signal Process* (April 1980), pp 340-3.

Two Acoustical Inverse Problems in Speech and Hearing. M. M. Sondhi, a chapter in *Mathematical Methods and Application of Scattering Theory*, New York: Springer, 1981, pp 290-300.

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